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ABSTRACT OF PAPER IN THE PROCESS OF COMPLETION SUPPORTED BY THE TIRC

Comparison of Smokers and Nonsmokers: II. Further Observations on the Ability to Taste P.T.C.; ABO and Rh Blood Groups.

by

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The current report involves the same method and study population described in the previous one, but gives the findings in a second series of donors. The trends in the second series are not only similar in direction but even more marked than those of the published group (Series I) in regard to the smoker-taster differences among white male donors. In addition, a similar but less marked trend was observed among negro male donors who had displayed some irregularities in the first series.

Among white male tasters of Series II, 73.7% were cigarette smokers and 12.0% never smoked, whereas among nontasters only 33.7% were regular cigarette smokers and 37.0% had never smoked(Table I). Among negro males of the new series, tasters included 72.3% cigarette smokers and 14.9% nonsmokers, whereas nontasters included 66.7% cigarette smokers and 17.6% who had never smoked.. Among white male donors, 56.4% of tasters and 21.7% of nontasters are classified as "heavy cigarette smokers" (20 or more a day), while among negro male donors, 46.2% of tasters and 21.6% of nontasters are heavy cigarette smokers. That these differences in smoking habits and taster ability are not a function of age is indicated by a comparison of age adjusted rates (Table 2).

The ABO and Rh blood types of the subjects were also examined. Table 3 shows the distribution of A, B, and O and AB white male donors of pooled Series I and II by smoking category. The distribution of ABO blood groups in the total white male donors of Series I and II (1005 subjects) agreed closely with the frequencies reported for U.S. whites by Glass and Li based on samples from New York City and North Carolina, and are in all likelihood representative of the Baltimore area. On the other hand, the distribution of total negro male donors (365 subjects) was significantly different from population expectancy with an excess of O and an overall deficiency of A individuals.

The overall proportion of Rh negative white donors (15.8%) did not differ appreciably from the 14.4% estimated for New York City whites, nor did the proportion of Rh negative negro donors (7.1%) differ from their expectancies of 7%.

When white males are divided into five smoking categories (nonsmokers, occasional smokers, regular smokers, other smokers and former smokers) no significant differences in ABO distribution were found between the groups. However, comparison of total cigarette smokers and the pooled group of occasional smokers and nonsmokers attained the 2% level of significance ($X^2_3 = 10.6$, $.02 > p > .01$) and this difference was also marked when heavy cigarette smokers, occasional and nonsmokers were grouped separately and compared ($X^2_6 = 14.7$, $.05 > p > .02$). Examination of Rh groups showed that occasional smokers had a significantly higher frequency of Rh negatives (29.4%) than heavy, other or former smokers ($X^2_4 = 11.1$, $.05 > p > .02$). Negro male donors also showed some differences in ABO distribution among nonsmokers, occasional smokers and heavy smokers ($X^2_6 = 9.2$, $.05 > p > .02$), but no real deviations in the proportion of Rh negatives.

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